

Understanding Mosquitoes

Sanford, Fla., September 9, 2004 - Mosquitoes are insects with long slender bodies, long, thin legs, narrow-wings with a fringe of scales on the edge of the wing and along the veins. The females have mouth parts well adapted for piercing skin and sucking blood. The males cannot suck blood but both sexes feed on nectar of various plants. Some mosquitoes are capable of transmitting diseases such as encephalitis to man and horses, and heartworm to dogs. Recent reports in Florida of West Nile and Saint Louis encephalitis are clear reminders that mosquitoes can transmit serious diseases to humans.

Life cycle: The life cycle of a mosquito consists of four stages: egg, larva, pupa, and adult. The eggs may be laid singly or in rafts, deposited in water, on the sides of containers, or on damp soil where they can hatch when flooded by rainwater. Old tin cans, old tires, or tree holes are places for egg laying are to await flooding by rain. The eggs of some flood water and salt marsh mosquitoes may dry out for more than a year and still hatch when flooded.

Regardless of the mosquito species, water is essential for breeding. The larvae normally occur in quiet water. The elongated eggs, about 1/40 inch long, are laid in batches of 50 to 200 and one female may lay several batches. In warm water, the eggs of most species hatch in two or three days. Some eggs require a drying period remaining dormant for months they hatch soon after water contacts them.

The larvae or "wigglers" feed on tiny bits of organic matter in the water. Many species breathe air through an elongated air tube that they extend through the water surface. Larvae change into comma-shaped pupae often called tumblers, in about a week.

The pupae transform into adults in about two days. Male mosquitoes feed on nectar of flowers and do not bite. Female mosquitoes also feed on nectar; however, a blood meal is usually necessary to mature the eggs.

Feeding: Mosquitoes show considerable variation in their preferred hosts. Some species feed on birds, cattle, horses, or other domestic animals while others prefer man. A few species feed only on cold-blooded animals and some live entirely on nectar or plant juices. Some are active at night and others only during the daytime.

Control: Receptacles such as old tires, junk automobiles, tin cans, rain barrels, and various plants hold enough water to create mosquito breeding places. It is up to individuals to see that those breeding places be reduced or eliminated. Porch screens should be kept tight fitting and in good repair. Chemical control of mosquitoes around the home may be accomplished with the use of repellents or space sprays. Several repellents are effective against mosquitoes. All insect repellents must have the active ingredient appear on the label. Check the label before buying.

DEET is the most commonly used repellent. It is available in the form of a liquid, aerosol, lotion, and cream. When applied properly to the exposed skin surfaces, most repellents will provide protection from mosquito bites for 2 hours up to 12 hours. Repeated applications to the skin may be hazardous. Care should be taken not to apply any repellent to eyes, lips, or other mucous membranes. Oil of citronella is another type of mosquito repellent for space repelling. It is the active ingredient in many of the candles, torches, or coils that may be burned to produce a smoke to repel mosquitoes. These smokes are useful outdoors only under windless conditions.

Insecticide sprays may be used to kill mosquitoes present at the time of treatment. The major advantage of this treatment is the immediate knockdown, quick application, and relatively small amounts of materials required for treatment. Pellets containing an insect growth regulator such as Methoprene or mosquito-killing bacteria such as BTI can be purchased to treat areas with stagnant or low flowing water.

For further information, please contact:

Al Ferrer

AFerrer@seminolecountyfl.gov

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